IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A method for guaranteeing delivery times of data communicated between communications devices of an asynchronous network comprising:

generating a global timing schedule for synchronizing the communication between said communications devices; ~~and~~

generating at least one trigger; and

in response to ~~at least one~~ a generated trigger, transmitting and receiving data according to the global timing schedule.

2. (original) The method of claim 1, wherein said global timing schedule comprises at least one time frame, each of said at least one time frames including at least one time slot, wherein during each of said at least one time slots each of said communications devices may receive data from only one other communications device.

3. (original) The method of claim 2, wherein synchronous data is communicated within each of said time slots.

4. (original) The method of claim 3, wherein data communication according to said global timing schedule is prioritized such that the delivery time of synchronous data does not exceed a maximum latency allowed for said synchronous data.

5. (oiginal) The method of claim 3, wherein each of said at least one time frames further comprises a period of time for the communication of asynchronous data.

6. (original) The method of claim 5, wherein the communication of asynchronous data is performed without undermining conventional Ethernet protocol standards.

7. (original) The method of claim 2, wherein said method comprises a priority of communication during each of said at least one time slots.

8. (original) The method of claim 7, wherein a selected one of said communications devices is given priority for communication during each of said at least one time slots.

9. (original) The method of claim 7, wherein each of said communications devices is given priority for communication during a respective one of said at least one time slots.

10. (original) The method of claim 1, wherein each of said communications devices generates a respective trigger for enabling the transmitting and receiving of data by said communications device according to said global timing schedule.

11. (original) A network interface controller for triggering data communication between communications devices of an asynchronous network having guaranteed delivery times, comprising:

a counting device for generating a signal in response to counting a predetermined number of counts;

a transmit trigger generator for receiving the signal from said counter and, in response, generating a transmit trigger signal;

a transmit memory device, for storing data to be transmitted;

a transmit memory manager for receiving the transmit trigger signal from said transmit trigger generator and, in response, directing at least a portion of said data stored in said memory device to a transmission device for transmission of said data;

a receive trigger generator for receiving the signal from said counter and, in response, generating a receive trigger signal;

a receive memory device, for storing received data; and

a receive memory manager for receiving the receive trigger signal from said receive trigger generator and, in response, directing received data to a location within said receive memory device.

12. (original) The network interface controller of claim 11, wherein said counting device generates a signal in response to counting each of a plurality of predetermined count numbers.

13. (original) The network interface controller of claim 11, further comprising a synchronization device for generating a global timing schedule within which the communication between said communications devices is synchronized, wherein said counting device is set to a predetermined count number in response to a signal from said synchronization device, said signal depicting the start of a time frame of said global timing schedule.

14. (original) The network interface controller of claim 11, wherein said counting device begins counting from a predetermined count number in response to a signal depicting the start of a time frame of a global timing schedule within which the communication between said communications devices is synchronized.

15. (original) The network interface controller of claim 11, wherein said transmit trigger generator, said transmit memory device, said receive trigger generator and said receive memory device are partitioned into different sections.

16. (original) The network interface controller of claim 15, wherein data to be transmitted is stored within respective sections of said transmit memory device such that respective triggers generated by respective sections of said transmit trigger device cause data in respective sections of said transmit memory device to be transmitted.

17. (original) The network interface controller of claim 15, wherein respective triggers generated by respective sections of said receive trigger device cause received data to be stored in respective sections of said receive memory device.

18. (original) The network interface controller of claim 15, wherein the sections of said transmit trigger generator, said transmit memory device, said receive trigger generator and said receive memory device are used to transmit data to and receive data from respective ones of said communication devices.

19. (original) An asynchronous network having guaranteed delivery times for data communicated between communication devices, comprising:

a plurality of communications devices, each of said communications devices including a network interface controller, including;

a counting device for generating a signal in response to counting a predetermined number of counts;

a transmit trigger generator for receiving the signal from said counter and, in response, generating a transmit trigger signal;

a transmit memory device, for storing data to be transmitted;

a transmit memory manager for receiving the transmit trigger signal from said transmit trigger generator and, in response, directing at least a portion of said data stored in said memory device to a transmission device for transmission of said data;

a receive trigger generator for receiving the signal from said counter and, in response, generating a receive trigger signal;

a receive memory device, for storing received data; and

a receive memory manager for receiving the receive trigger signal from said receive trigger generator and, in response, directing received data to a location within said receive memory device;

a network manager for communicating global information among said plurality of communications devices; and

a synchronization device for generating a global timing schedule for synchronizing the communication between said communications devices, wherein in response to at least one trigger, data communicated between the plurality of communication devices in said asynchronous network is transmitted and received according to said global timing schedule.

20. (original) The asynchronous network of claim 19, wherein each of said counting devices generates a signal in response to counting each of a plurality of predetermined count numbers.

21. (original) The asynchronous network of claim 20, wherein non-conflicting ones of said plurality of communications devices generate a trigger in response to said signal generated by a respective counter for each predetermined count number.

22. (original) The asynchronous network of claim 19, wherein said global timing schedule comprises a recurring time frame.

23. (original) The asynchronous network of claim 22, wherein a transmit trigger signal generated by a communications device generates a time slot in a time frame of said global timing schedule in which said communications device may transmit and receive data.

24. (original) The asynchronous network of claim 19, wherein data communication according to said global timing schedule is prioritized such that the delivery time of synchronous data does not exceed a maximum latency allowed for said synchronous data.